

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/573,796
Source: IFWP
Date Processed by STIC: 02/10/2007

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 02/10/2007

PATENT APPLICATION: US/10/573,796

TIME: 09:20:55

Input Set : E:\seqlist.txt

Output Set: N:\CRF4\02102007\J573796.raw

```

4 <110> APPLICANT: REILING, KEITH KINKEAD
5      NEWMAN, JACK D.
6      WITHERS III, SYDNOR T.
7      PITERA, DOUGLAS J.
8      KEASLING, JAY D.
9      MARTIN, VINCENT J.J.
11 <120> TITLE OF INVENTION: METHODS FOR IDENTIFYING A BIOSYNTHETIC PATHWAY GENE PRODUCT
13 <130> FILE REFERENCE: BERK-032
C--> 16 <140> CURRENT APPLICATION NUMBER: US/10/573,796
C--> 16 <141> CURRENT FILING DATE: 2005-03-27
16 <150> PRIOR APPLICATION NUMBER: US2004/032407
17 <151> PRIOR FILING DATE: 2004-09-29
19 <150> PRIOR APPLICATION NUMBER: 60/507,220
20 <151> PRIOR FILING DATE: 2003-09-29
22 <160> NUMBER OF SEQ ID NOS: 37
24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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27 <211> LENGTH: 44
28 <212> TYPE: DNA
29 <213> ORGANISM: Artificial Sequence
31 <220> FEATURE:
32 <223> OTHER INFORMATION: primer
34 <400> SEQUENCE: 1
35 gatctgcagtgagggaatt aaccatgcat taccgttctt aact      44
37 <210> SEQ ID NO: 2
38 <211> LENGTH: 33
39 <212> TYPE: DNA
40 <213> ORGANISM: Artificial Sequence
42 <220> FEATURE:
43 <223> OTHER INFORMATION: primer
45 <400> SEQUENCE: 2
46 ttgatctgcc tcctatgaag tccatggtaa att      33
48 <210> SEQ ID NO: 3
49 <211> LENGTH: 42
50 <212> TYPE: DNA
51 <213> ORGANISM: Artificial Sequence
53 <220> FEATURE:
54 <223> OTHER INFORMATION: primer
56 <400> SEQUENCE: 3
57 acttcatagg aggcagatca aatgtcagag ttgagagcct tc      42
59 <210> SEQ ID NO: 4
60 <211> LENGTH: 33
61 <212> TYPE: DNA

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62 <213> ORGANISM: Artificial Sequence
64 <220> FEATURE:
65 <223> OTHER INFORMATION: primer
67 <400> SEQUENCE: 4
68 gagtattacc tcctatttat caagataagt ttc 33
70 <210> SEQ ID NO: 5
71 <211> LENGTH: 42
72 <212> TYPE: DNA
73 <213> ORGANISM: Artificial Sequence
75 <220> FEATURE:
76 <223> OTHER INFORMATION: primer
78 <400> SEQUENCE: 5
79 gataaatagg aggtaatact catgaccgtt tacacagcat cc 42
81 <210> SEQ ID NO: 6
82 <211> LENGTH: 30
83 <212> TYPE: DNA
84 <213> ORGANISM: Artificial Sequence
86 <220> FEATURE:
87 <223> OTHER INFORMATION: primer
89 <400> SEQUENCE: 6
90 tacctgcagt tattcctttg gtagaccagt 30
92 <210> SEQ ID NO: 7
93 <211> LENGTH: 45
94 <212> TYPE: DNA
95 <213> ORGANISM: Artificial Sequence
97 <220> FEATURE:
98 <223> OTHER INFORMATION: primer
100 <400> SEQUENCE: 7
101 gatgtcgact aggaggaata taaaatgaaa aattgtgtca tcgtc 45
103 <210> SEQ ID NO: 8
104 <211> LENGTH: 34
105 <212> TYPE: DNA
106 <213> ORGANISM: Artificial Sequence
108 <220> FEATURE:
109 <223> OTHER INFORMATION: primer
111 <400> SEQUENCE: 8
112 ttagctgtcc tccttaattc aaccgttcaa tcac 34
114 <210> SEQ ID NO: 9
115 <211> LENGTH: 46
116 <212> TYPE: DNA
117 <213> ORGANISM: Artificial Sequence
119 <220> FEATURE:
120 <223> OTHER INFORMATION: primer
122 <400> SEQUENCE: 9
123 gatgtcgaca ggaggacagc taaatgaaac tctcaactaa actttg 46
125 <210> SEQ ID NO: 10
126 <211> LENGTH: 33
127 <212> TYPE: DNA
128 <213> ORGANISM: Artificial Sequence

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130 <220> FEATURE:
131 <223> OTHER INFORMATION: primer
133 <400> SEQUENCE: 10
134 agtgtaatcc tccttatttt ttaacatcgt aag 33
136 <210> SEQ ID NO: 11
137 <211> LENGTH: 46
138 <212> TYPE: DNA
139 <213> ORGANISM: Artificial Sequence
141 <220> FEATURE:
142 <223> OTHER INFORMATION: primer
144 <400> SEQUENCE: 11
145 ttaaaaaata aggaggatta cactatgggtt ttaaccaata aaacag 46
147 <210> SEQ ID NO: 12
148 <211> LENGTH: 35
149 <212> TYPE: DNA
150 <213> ORGANISM: Artificial Sequence
152 <220> FEATURE:
153 <223> OTHER INFORMATION: primer
155 <400> SEQUENCE: 12
156 atcgctcgact taggatttaa tgcaggtgac ggacc 35
158 <210> SEQ ID NO: 13
159 <211> LENGTH: 40
160 <212> TYPE: DNA
161 <213> ORGANISM: Artificial Sequence
163 <220> FEATURE:
164 <223> OTHER INFORMATION: primer
166 <400> SEQUENCE: 13
167 atccccgggag gaggattact atatgcaaac ggaacacgtc 40
169 <210> SEQ ID NO: 14
170 <211> LENGTH: 28
171 <212> TYPE: DNA
172 <213> ORGANISM: Artificial Sequence
174 <220> FEATURE:
175 <223> OTHER INFORMATION: primer
177 <400> SEQUENCE: 14
178 atccccgggtt atttaagctg ggtaaagt 28
180 <210> SEQ ID NO: 15
181 <211> LENGTH: 43
182 <212> TYPE: DNA
183 <213> ORGANISM: Artificial Sequence
185 <220> FEATURE:
186 <223> OTHER INFORMATION: primer
188 <400> SEQUENCE: 15
189 agatccgcgg aggaggaatg agtaatggac tttccgcagc aac 43
191 <210> SEQ ID NO: 16
192 <211> LENGTH: 81
193 <212> TYPE: DNA
194 <213> ORGANISM: Artificial Sequence
196 <220> FEATURE:

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197 <223> OTHER INFORMATION: primer
199 <400> SEQUENCE: 16
200 agtgagagct cttattttatt acgctggatg atgttgggct agcaggagga attcaccatg 60
201 agttttgata ttgccaaata c 81
203 <210> SEQ ID NO: 17
204 <211> LENGTH: 50
205 <212> TYPE: DNA
206 <213> ORGANISM: Artificial Sequence
208 <220> FEATURE:
209 <223> OTHER INFORMATION: primer
211 <400> SEQUENCE: 17
212 tctgagcaac gaacgaagca tatattttatg tcctccaggc cttgattttg 50
214 <210> SEQ ID NO: 18
215 <211> LENGTH: 50
216 <212> TYPE: DNA
217 <213> ORGANISM: Artificial Sequence
219 <220> FEATURE:
220 <223> OTHER INFORMATION: primer
222 <400> SEQUENCE: 18
223 caaatcaag gcctggagga cataaatata tgcttcgttc gttgctcaga 50
225 <210> SEQ ID NO: 19
226 <211> LENGTH: 33
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial Sequence
230 <220> FEATURE:
231 <223> OTHER INFORMATION: primer
233 <400> SEQUENCE: 19
234 gcatccatgg tatcatcctc cgttgatgtg atg 33
236 <210> SEQ ID NO: 20
237 <211> LENGTH: 29
238 <212> TYPE: DNA
239 <213> ORGANISM: Artificial Sequence
241 <220> FEATURE:
242 <223> OTHER INFORMATION: primer
244 <400> SEQUENCE: 20
245 tgataccatg gactttccgc agcaactcg 29
247 <210> SEQ ID NO: 21
248 <211> LENGTH: 32
249 <212> TYPE: DNA
250 <213> ORGANISM: Artificial Sequence
252 <220> FEATURE:
253 <223> OTHER INFORMATION: primer
255 <400> SEQUENCE: 21
256 gtacatgcat ttatttatta cgctggatga tg 32
258 <210> SEQ ID NO: 22
259 <211> LENGTH: 59
260 <212> TYPE: DNA
261 <213> ORGANISM: Artificial Sequence
263 <220> FEATURE:

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TIME: 09:20:55

Input Set : E:\seqlist.txt

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264 <223> OTHER INFORMATION: primer

266 <400> .SEQUENCE: 22

267 ggggtaccggg cccccctcg cctctagagt cgactaggag gaattcacca tgagttttg 59

269 <210> SEQ ID NO: 23

270 <211> LENGTH: 1671

271 <212> TYPE: DNA

272 <213> ORGANISM: Artificial Sequence

274 <220> FEATURE:

275 <223> OTHER INFORMATION: synthetic amorphadiene synthase gene

277 <400> SEQUENCE: 23

278 gattaaggca tgcaccatgg ccctgaccga agagaaaccg atccgcccga tcgctaactt 60

279 cccgccgtct atctggggtg accagttcct gatctacgaa aagcagggtg agcagggtgt 120

280 tgaacagatc gtaaacgacc tgaagaaaga agttcgtcag ctgctgaaag aagctctgga 180

281 catcccgatg aaacacgcta acctgctgaa actgatcgac gagatccagc gtctgggtat 240

282 cccgtaccac ttcgaacgag aaatcgacca cgcactgcag tgcattctacg aaacctacgg 300

283 cgacaactgg aacggcgacc gttcttctct gtggtttcgt ctgatgcgta aacagggtta 360

284 ctacgttacc tgtgacgttt ttaacaacta caaggacaag aacgggtgctt tcaaacagtc 420

285 tctggctaac gacgttgaag gcctgctgga actgtacgaa ggcacctcca tgcgtgtacc 480

286 ggggtgaaatc atcctggagg acgcgctggg ttccaccggt tctcgtctgt ccattatgac 540

287 taaagacgct ttctctacta acccggtctt gtccaccgaa atccagcgtg ctctgaaaca 600

288 gccgctgtgg aaacgtctgc cgcgtatcga agcagcacag tacattccgt ttaccagca 660

289 gcaggactct cacaacaaga cctgctgaa actggctaag ctggaattca acctgctgca 720

290 gtctctgcac aaagaagaac tgtctcacgt ttgtaagtgg tgggaaggcat ttgacatcaa 780

291 gaaaaacgag ccgtgcctgc gtgaccgtat cgttgaatgt tacttctggg gtctgggttc 840

292 tggttatgaa ccacagtact cccgtgcacg tgtgttcttc actaaagctg tagctgttat 900

293 caccctgatc gatgacactt acgatgctta cggcacctac gaagaactga agatctttac 960

294 tgaagctgta gaacgctggt ctatcacttg cctggacact ctgccggagt acatgaaacc 1020

295 gatctacaaa ctgttcatgg atacctacac cgaaatggag gaattcctgg caaaagaagg 1080

296 ccgtaccgac ctgttcaact gcggtaagaa gtttgtaaaa gaattcgtac gtaacctgat 1140

297 ggttgaaagt aaatgggcta acgaaggcca tatcccgact accgaagaac atgacctggg 1200

298 tgttatcatc accggcggtg caaacctgct gaccaccact tgctatctgg gtatgtccga 1260

299 catctttacc aaggaatctg ttgaatgggc tgtttctgca ccgccgctgt tccgttactc 1320

300 cggatttctg ggtcgtcgtc tgaacgacct gatgaccac aaagcagagc aggaacgtaa 1380

301 aactcttcc tctctctgg aatcctacat gaaggaaat aacgttaacg aggagtacgc 1440

302 acagactctg atctataaag aagttgaaga cgtatggaaa gacatcaacc gtgaatacct 1500

303 gactactaaa aacatccgc gcccgctgct gatggcagta atctacctgt gccagttcct 1560

304 ggaagtacag tacgctggta aagataactt cactcgcag ggcgacgaat acaaacacct 1620

305 gatcaaatcc ctgctgggtt acccgatgtc catctgatcc cgggattaga t 1671

307 <210> SEQ ID NO: 24

308 <211> LENGTH: 1671

309 <212> TYPE: DNA

310 <213> ORGANISM: Artificial Sequence

312 <220> FEATURE:

313 <223> OTHER INFORMATION: synthetic amorphadiene synthase gene

315 <400> SEQUENCE: 24

316 ctaattccgt acgtggtacc gggactggct tctctttggc taggcgggct agcgattgaa 60

317 gggcggcaga tagacccac tgggtcaagg ctagatgctt ttcgtccaac tcgtcccaca 120

318 acttgctag catttgctgg acttcttctc tcaagcagtc gacgactttc ttcgagacct 180

319 gtagggctac tttgtgcgat tggacgactt tgactagctg ctctaggtcg cagaccata 240

VERIFICATION SUMMARY

DATE: 02/10/2007

PATENT APPLICATION: US/10/573,796

TIME: 09:20:56

Input Set : E:\seqlist.txt

Output Set: N:\CRF4\02102007\J573796.raw

L:16 M:270 C: Current Application Number differs, Replaced Current Application No

L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date